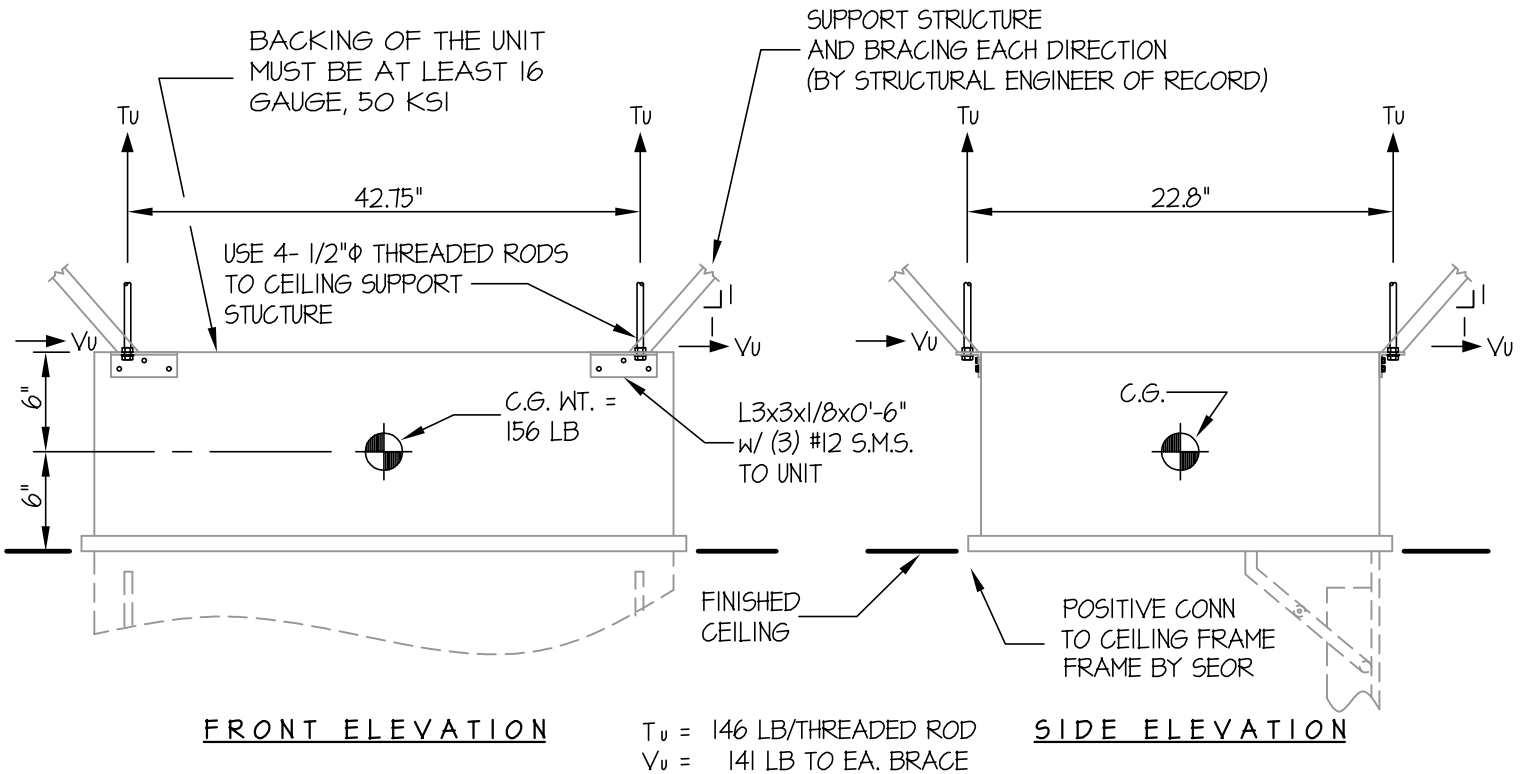


<b>CHATSWORTH PRODUCTS, INC.</b> <b>CEILING MOUNTED ZONE ENCLOSURE</b> <b>2 FT. X 4 FT.</b>	DES. <b>J. ROBERSON</b>	SHEET <b>1</b> OF <b>1</b> SHEET
	JOB NO. <b>11-1131</b>	
	DATE <b>7/26/12</b>	

SEISMIC ANCHORAGE

CEILING MOUNTED



LOADS: PER 2010 CALIFORNIA BUILDING CODE AND ASCE 7-05

(STRENGTH DESIGN IS USED) ( $S_{ds} = 1.67$ ,  $a_p = 2.5$ ,  $I_p = 1.5$ ,  $R_p = 2.5$ ,  $z/h \leq 1.0$ )

WEIGHT = 156 LB

HORIZONTAL FORCE ( $E_h$ ) =  $3.60W_p = 562 \text{ LB}$

VERTICAL FORCE ( $E_v$ ) =  $0.40W_p = 62 \text{ LB}$

#12 TEK SCRWS 16 GAGE, 50 KSI

$\phi_T = 328 \text{ LB/SCREW}$

$\phi_V = 840 \text{ LB/SCREW}$

BOLT FORCES:

TENSION (T)

$$T_u \text{ MAXIMUM} = \left[ \frac{562\#(6'')}{2\text{BOLTS}(42.75'')} \times (0.3) \right] + \frac{562\#(6'')}{2\text{BOLTS}(22.8'')} + \frac{1.2(156\#) + 62\#}{4\text{BOLTS}} = 146 \text{ LB/SCREW (MAX)}$$

( HORIZ - SIDE TO SIDE )      ( HORIZ - FRONT TO BACK )      ( WEIGHT +  $E_v$  )

SHEAR (V)

$$V_u \text{ MAXIMUM} = \frac{562\#}{4\text{BOLTS}} = 141 \text{ LB/SCREW (MAX)} \text{ (PER AISC J3.7, LESS THAN 20\% STRESS)}$$

NOTE:

STRUCTURAL ENGINEER OF RECORD SHALL PROVIDE SUPPORT STRUCTURE TO SUPPORT WEIGHTS AND FORCES SHOWN.

